

### City of Sierra Vista Department of Community Development

#### Standards for Grease, Oil and Sand Interceptors

#### Grease interceptors and automatic grease removal devices required.

A grease interceptor shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias and clubs. Fixtures and equipment shall include pot sinks, pre-rinse sinks, soup kettles or similar devices, wok stations; floor drains or sinks into which kettles are drained, automatic hoodwash units and dishwashers without pre-rinse sinks. Grease interceptors shall receive waste only from fixtures and equipment that allows fats, oils or grease to be discharged.

A grease interceptor shall be provided for uses intended for the serving and/or preparation of food, but not limited to:

- Coffee shops
- Cafés
- Donut shops
- Delis
- Ice cream parlors
- Meat shops/markets
- Satellite food shops
- Restaurants
- Sandwich shops
- Bars/Night Clubs

**Grease interceptors shall:** 1) Be designed for size in accordance with the City of Sierra Vista's interceptor sizing formula. 2) Be 3-compartment and provided with a minimum of a 24" x 24" effluent sampling box with an approved metal manhole lid immediately downstream. 3) Have a 50 square foot concrete wash down area with curb and a 3 inch drain installed and connected to the interceptor. 4) Have a backwater valve with one-way cleanouts installed on each side of the backwater valve after the sample box. 5) Have all kitchen plumbing fixtures other than the hand sink connected to the interceptor line.

An oil/sand inceptor shall be provided for uses intended for, but not limited to:

- Repair garages
- Gasoline stations
- Grease pits/work racks
- Car washing facilities with engine or undercarriage cleaning
- Facilities that produce oily liquids
- Facilities that produce flammable liquids

**Oil/Sand interceptors shall:** 1) Be designed for size in accordance with the Arizona Administrative Code. 2) Be 3-compartment and provided with a minimum of a 24" x 24" effluent sampling box with an approved metal manhole lid immediately downstream. 3) Have a backwater valve with one-way cleanout installed after sample box.

#### **Specific Inspection and Testing Standards**

- 1. Manufacturer's Certificate of Conformance Document shall be provided for each interceptor prior to installation.
- 2. The tops of all interceptors and sample boxes shall have an approved concrete base securing manhole lids.
- 3. All interceptors that are to be installed in an area with vehicular traffic shall be provided with a traffic rated concrete cover designed by an engineer. Rated concrete covers shall extend a minimum of 12 inches beyond the interceptor on all sides and ends. Minimum thickness 6 inches with #4 bar centered.
- 4. Inspect interceptors prior to installing riser sections or backfilling.
- 5. Inspect baffle walls for cracks, holes and make sure walls are sealed (water tight).
- 6. Inspect invert in and invert out ensuring weep ring and seal are installed with non-shrink grout or hydraulic cement.
- 7. Inspect outlet pipes in each compartment ensuring distance from the floor is correct.
- 8. Test tanks by completely filling with clean water. Tanks shall hold for a minimum of 24 hours. Tanks 2,000 gallons or larger may use the 3 step water leak test method.
- 9. Any visible flowing leak is considered a failure. A damp or wet spot that is not flowing is not considered a failure.
- 10. If the tank fails the test, repair or replace tank. Any repairs proposed to leaking tanks shall first be authorized by the inspector prior to commencing with repairs.
- 11. Inspector shall approve and sign off on each water leak test before proceeding.

**Note:** All above inspections shall be performed and approved by the City of Sierra Vista inspector. See also the currently adopted addition of the International Plumbing Code for additional requirements.



#### City of Sierra Vista

#### **Recommended Grease Interceptor Sizing Formula**

Com	pany:	Calculated by:			Date:
Proje	ect:	Location:			1
Follow these seven simple steps to determine grease interceptor size:					
	Step 1 Step 2	Step 3	Step 4	Step 5	Step 6
Calc	ulations X	X		_	
	Λ Λ	Λ		-	
	#of meals Waste Flow	Detection	Ctanana	Calculated	Grease
		Retention Time	Storage Factor	Interceptor size	Interceptor
	Per Peak Hrs Rate  Number of Meals Per Peak Hour (Recommende		Factor	NOTES:	ппетсерног
	Seating Capacity Meal Facto	•	er Peak hour	NOTES.	
	X	=	ler i cak near		
	Establishment Type:	Meal Factor			
1	Fast Food (45 min)	1.33			
_	Restaurant (60 min)	1.00			
	Leisure Dining (90 min)	0.67			
	Dinner Club (120 min)	0.50			
	Waste Flow Rate:			NOTEC	
		Fla Data		NOTES:	
	Condition	Flow Rate			
2	With a Dishwashing Machine	6 Gallons			
_	Without a Dishwashing Machine	5 Gallons			
	Single Service Kitchen	2 Gallons			
	Food Waste Disposer Only	1 Gallons			
	Retention Time			NOTES:	
2	Commercial Kitchen Waste				
3	Dishwasher	2.5 Hours			
	Single Service Kitchen	4.5.11			
	Single Serving	1.5 Hours			
	Storage Factor			NOTES:	
	Kitchen Type	Storage Factor			
	Fully Equipped Commercial				
4	Hours of Operation 8 Hours	1.00			
	12 Hours	1.50			
	16 Hours	2.00			
	24 Hours	3.00			
	Single Service Kitchen	1.50			
	Calculate Liquid Capacity			NOTES:	
5	Multiply the values obtained from steps 1, 2, 3,		is the		
	approximate grease interceptor size for this app	olication.		No	
6	Select Grease Interceptor	form of a Co. I is		NOTES:	
	Using the approximate required liquid capacity size as recommended by the manufacturer.	nom step 6, select	an appropriate	e	

#### **Interceptor Inspection Procedures**

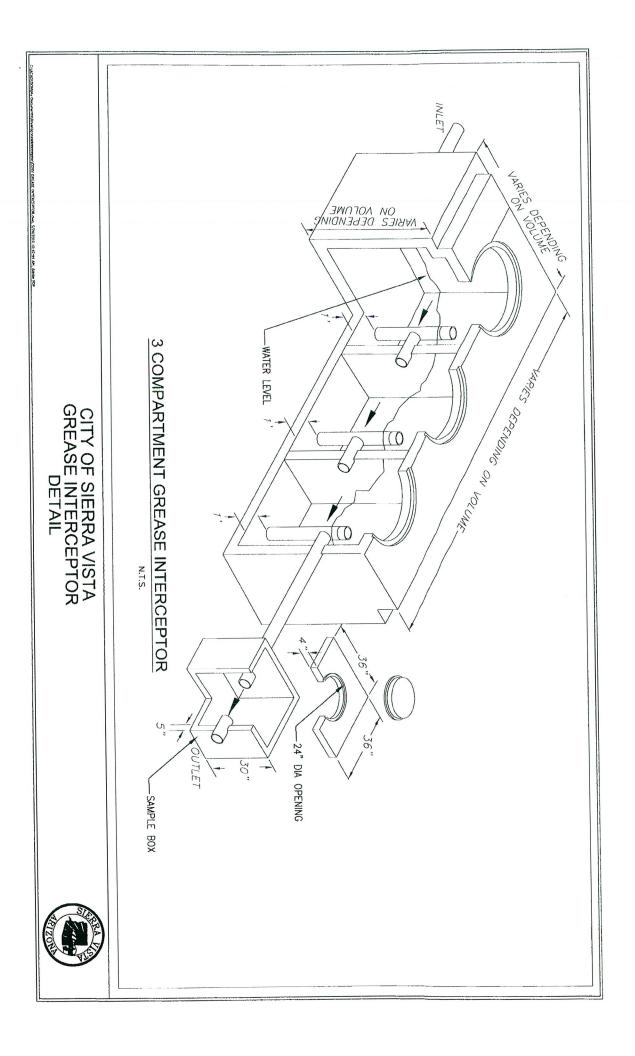
1<sup>st</sup> Inspection; Pre-Installation: Obtain Manufacturers Conformance Certificate – Make sure bedding is in place (ABC) – That it is a 3 compartment – The walls are sealed – The tank is leveled – And that the outlets are T-types and are 12 inches off the floor.

**2**<sup>nd</sup> **Inspection; Water leak Test:** Make sure the tank was filled and allowed to sit for 24 hours before testing – Inspect the tank for flowing leaks, a wet spot is not considered a leak per ADEQ regulations. Record the initial water level and time, after one hour record the water level and time, the tank passes the water leak test if the water level dropped less than ¼ inch over one hour period. – Backfill tank to water level and compact.

**3rd Inspection; Water Leak Test for Inlets and Outlets:** Once the sample box is placed in-line plug off the inlet of the tank and the outlet of the sample box, fill tank above the inlet and outlets of tank and sample box. Any visible leak of flowing water is considered a failure. At this time check sample box for any leaks. Any repairs must be done with hydraulic cement or similar products approved by the inspector.

4<sup>th</sup> Inspection; Final: Verify backwater valve is in place and going in the right direction — Interceptors installed in an area with vehicular traffic shall install a traffic rated concrete cap designed by an engineer and extend 12 inches beyond the interceptor on all sides and ends. Minimum thickness is 6 inches and #4 bares — Interceptors installed in non vehicular traffic shall install a concrete cap with a minimum thickness of 4 inches and extend 12 inches beyond the interceptor on all sides and ends. — Verify that the wash down area is 50 square feet, (10x5) and is hooked up to the interceptor, and the drain is 3 inches in diameter.

Any questions please contact Community Development @ (520) 417-4413



- NOTES:

  1. TRAFFIC RATED PADS REQUIRE A MINIMUM
  1. TRAFFIC RATED PADS REQUIRE A MINIMUM OF 6° CONCRETE WITH REBAR REINFORCEMENT
  2. A MINIMUM OF 1' AT TEACH EDGE OF THE PAD
  MUST BE RESTING ON NATIVE SOIL.

## VARIES DEPENDING ON VOLUME INTERCEPTOR OPENING VARIES DEPENDING ON VOLUME INTERCEPTOR OPENING INTERCEPTOR OPENING SAMPLE BOX OPENING CLEANOUT

# CITY OF SIERRA VISTA OIL/GREASE INTERCEPTOR PAD DETAIL



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